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EXAMINER

CHANNAVAJALA, SRIRAMA T

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/607,871	<b>Applicant(s)</b> MCVOY ET AL.	
	<b>Examiner</b> SRIRAMA CHANNAVAJJALA	<b>Art Unit</b> 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 48-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 48-84 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/19/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

***DETAILED ACTION***

***Response to Amendment***

1. Claims 48-84 are pending in this application.
2. Examiner acknowledges applicant's amendment filed on 2/11/2009.
3. Claims 48,55,65,74 have been amended [7/20/2008].
4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed 1/19/2007 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/20/2008 has been entered and a non-final Office action was mailed on 8/11/2008.

***Drawings***

5. The Drawings filed on 6/27/2003 are acceptable for examination purpose

***35 USC § 112***

6. In view of applicant's arguments at page 11-12, the rejection under 112 first paragraph is hereby withdrawn.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. ***Claims 48-84 are rejected under 35 U.S.C. 101 because invention is directed to non-statutory subject matter.***

***As set forth in MPEP 2106(II)A:***

*Identify and understand Any Practical Application Asserted for the Invention. The claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” State Street, 149 F.3d at 1373, 47USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the **practical application** for the claimed invention, i.e., why the applicant believes the claimed invention is useful.*

*Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material **stored in a computer-readable medium does not make the invention eligible for patenting.** For example, a claim directed to a word processing **file stored on a disk may satisfy the utility** requirement of 35 U.S.C. 101 since the information stored may have some **“real world”** value. However, the mere fact that the claim may satisfy the utility*

Art Unit: 2166

*requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a “useful, concrete and tangible” result to have a practical application.*

8. Claims 48,55,65,74 is directed to a system, method, apparatus, computer program product of applying version control to an associative array. This claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce a useful, concrete and tangible result. see “Gottschalk v. Benson, 409 U.S.63,71-72,175 USPQ 673,676 (1972).

Moreover, whether a claim recites a machine implemented process is not determinative of whether that process claim is statutory. Thus, a claim that is nothing more than a machine-implemented abstract idea is not statutory. See Benson, 409 U.S.63, 175 USPQ 673 (finding machine-implemented method of converting binary-coded decimal numbers into pure binary numbers unpatentable).

The fundamental test for patent eligibility is to determine whether the claimed invention produces a “useful, concrete and tangible result”. See State Street Bank & Trust Co. v. Signature Financial Group Inc., 149 F.3d 1368,47 USPQ2d 1596 (Fed.Cir. 1998) and AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 50 USPQ2d 1447 (Fed.Cir. 1999). In these decisions, the court found that the claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible” result.”

See State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. (“[T]he transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces “a useful, concrete and tangible result” – a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades”).

See also AT&T, 172 F.3d at 1358, 50 USPQ2d at 1452 (Claims drawn to a long-distance telephone billing process containing mathematical algorithms were held to be patentable subject matter because the process used the algorithm to produce a useful, concrete, tangible result without preempting other uses of the mathematical principle).

Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for a final result of the method, system, computer program product of merely receiving a plurality of user inputs responsive to identifying the plurality of conflicts, each user input specifying “a conflict resolution procedure”, also, it is noted that claims 48-54 directed to “A system for applying”; claims; claims 65-69 directed to “An apparatus for applying version control...” and claims 74-83 directed to “A computer program product.....” do not specifically define necessary hardware

Art Unit: 2166

elements,[including drawings figs 1-9, further this produced result remains in the abstract, and thus fails to achieve the required status of having “real world” value.

Claims 49-54, 56-61, 66-73, 75-84 depend from claims 48,55,65,74 are also likewise rejected.

**For “General Analysis for Determining Patent-Eligible Subject Matter”, see 101**

**Interim Guidelines as indicated below:**

<<<http://www.uspto.gov/web/offices/pac/dapp/oqsheet.html>>>

see MPEP 8<sup>th</sup> edition, Rev 6, Aug 2007

***No new matter should be entered.***

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

Art Unit: 2166

F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 48-84 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 24-28,30-34,42-45 [as filed on 7/7/2008] of co-pending Application No. **10/899,560**. Although the conflicting claims are not identical, they are not patentably distinct from each other because of following reasons:

Claims 24-28, 30-34, 42-45 [as filed on 7/7/2008] of Patent Application No. **10/899,560** contain(s) every element of claims 48-84 of the instant application and thus anticipate the claim(s) of the instant application. Claims of the instant application therefore are not patently distinct from the earlier patent claims and as such are unpatentable over obvious-type double patenting. A later patent/application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier



Art Unit: 2166

claim.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896,225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a 35 patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

"Claim 12 and Claim 13 are generic to the species of invention covered by claim 3 of the patent. Thus, the generic invention is "anticipated" by the species of the patented invention. Cf., Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim) 4. This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944, 214 USPQ 761,767 (CCPA 1982); Schneller, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 12 and 13 were properly rejected

Art Unit: 2166

under the doctrine of obviousness-type double patenting." (In re Goodman (CA FC) 29 USPQ2d 2010 (12/3/1993).

10. Claims 48-84 are provisionally rejected on the ground of nonstatutory obviousness- type double patenting as being unpatentable over claims 1-14,16,18-21[as amended 6/3/2008] of co-pending Application No. **10700,017**. Although the conflicting claims are not identical, they are not patentably distinct from each other because of following reasons:

Claims 1 and 6 of Patent Application No. **10700,017** contain(s) every element of claims 48-84 of the instant application and thus anticipate the claim(s) of the instant application. Claims of the instant application therefore are not patentably distinct from the earlier patent claims and as such are unpatentable over obvious-type double patenting. A later patent/application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is

Art Unit: 2166

anticipated by a 35 patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

"Claim 12 and Claim 13 are generic to the species of invention covered by claim 3 of the patent. Thus, the generic invention is "anticipated" by the species of the patented invention. Cf., Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim) 4. This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); Schneller, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 12 and 13 were properly rejected under the doctrine of obviousness-type double patenting." (In re Goodman (CA FC) 29 USPQ2d 2010 (1213/1993).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 2166

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2166

**14. Claims 48--84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arun et al. [hereafter Arun] U.S. Patent No. 6,631,386 in view of Baisley et al. [ hereafter Baisley] U.S. Patent No. 6415299**

15. With respect to claim 48, Arun teaches a first computer including a first version of the associative array, wherein the first version of the associative array comprises a first key/value pair (i.e., a first user computer storing a record having a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy, fig. 4, lines 20-54 in col. 2, and lines 52-67 in col. 26);

Arun teaches a second computer including a second version of the associative array, wherein the second version of the associative array comprises a second key/value pair (i.e., a second user computer storing a record having a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy, fig. 4, lines 20-54 in col. 2, and lines 52-67 in col. 26);

Arun teaches a version controller, adapted to communicate with the first computer and the second computer (i.e., version control subsystem 11 in fig. 1 communicating with users), the version controller for merging modifications from the first version of the associative array and the second version of the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B) and resolving a plurality of conflicts between the first version of the associative array and the second version of the associative array (i.e., item 153 in fig. 6, col 17, line 9-17, line 59-67, col 18, line 1-12), by receiving a plurality of user inputs responsive to identifying the plurality of conflicts

Art Unit: 2166

each user input (col 13, line 61-67, col 14, line 23-29, col 17, line 59-65) specifying a conflict resolution procedure for an individual conflict (i.e., items 152-153 in fig. 6), Arun specifically teaches not only user interface where user initiating “conflict resolution”, but also maintaining updated version records as detailed in col 17, line 59-67.

Arun does not explicitly disclose generating a third version of the associative array by such merging and resolving conflicts. However, Baisley teaches generating a third version of the associative array by merging modifications from the first version of an object and the second version of the object and resolving conflicts between the first version of the object and the second version of the object (i.e., merging changes in the multiple versions into a specific version of the object, fig 3, col 5, line 20-37, line 38-47]) Baisley specifically teaches model versions maintaining version attributes, particularly, multiple versions in a version tree for example as detailed in fig 3, also teaches performing the “merge operation” and resolving conflicts between versions as detailed in col 5, line 20-37, line 38-47.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of merging versions of a model particularly merging a source version of a target version of a model of Baisley's into database version control , particularly versioning control module of Arun et al. because both Baisley,Arun are directed to version management [Baisley: fig 3, Abstract; Arun: Abstract, fig 1], and both Baisley, Arun teach “version tree” [Baisley: fig 3; Arun: fig 3]

Art Unit: 2166

and both Baisley and Arun are from same field of endeavor. Because both Baisley, Arun teach “version management” particularly resolving conflicts between versions [Baisley: Abstract; Arun: Abstract], it would have been obvious to one skilled in the art to to combine the references to achieve the “predictable result” of not only merging multiple versions, resolving conflict, but also maintaining respective attribute value conflict to the user for examination and resolution when future versions are merged.

16. With respect to claim 49, Arun teaches the version controller further generates a directed acyclic graph, wherein the directed acyclic graph identifies a modification to the associative array by the first version of the associative array and a modification to the associative array by the second version of the associative array (fig. 3 and fig. 5).

17. The limitations of claim 50 are rejected in the analysis of claims 48-49 above, and the claim is rejected on that basis.

18. With respect to claim 51, Arun teaches the version controller further generates a changeset including modifications to the associative array by the first version of the associative array and the second version of the associative array (i.e., item 151 in fig. 6). With respect to claim 52, Arun teaches the version controller further executes at least one version control operation from a group of: creating the associative array, checking out the associative array, checking in the associative array, generating a report, cloning the associative array to generate a cloned associative array and

Art Unit: 2166

displaying differences between the first version of the associative array and the second associative array (i.e., checking out the associative array, fig. 4, lines 13-31 in col. 26, and lines 20-54 in col. 2).

19. With respect to claim 53, Arun teaches the associative array comprises a file including: a key; and a value associated with the key (i.e., records in the form of files, lines 27-33 in col. 3 and lines 23-28 in col. 26).

20. With respect to claim 54, Arun teaches the version controller further organizes a plurality of associative arrays as a database table (fig. 2 and lines 49-67 in col. 4).

21. With respect to claim 55, Arun teaches generating a first version of the associative array by modifying a first key/value pair, wherein the first version of the associative array is a derivative of the associative array (i.e., a first user having a record including a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy and modifying the record, fig. 3, fig. 4, fig. 5, lines 20-54 in col. 2, and lines 52-67 in col. 26).

Arun teaches generating a second version of the associative array by modifying a second key/value pair, wherein the second version of the associative array is a derivative of the associative array (i.e., a second user having the record including a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy and modifying the record, fig. 3, fig. 4, fig. 5, lines 20-54 in col. 2, and lines 52-67 in col. 26).



Arun teaches merging modifications from the first version of the associative array and the second version of the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B) and resolving a plurality of conflict between the first version of the associative array and the second version of the associative array (i.e., item 153 in fig. 6, col 17, line 9-17, line 59-67, col 18, line 1-12), by receiving a plurality of user inputs responsive to identifying the plurality of conflicts each user input (col 17, line 59-65) specifying a conflict resolution procedure for an individual conflict (i.e., items 152-153 in fig. 6, col 17, line 59-67, col 18, line 28-51), Arun specifically teaches not only user interface where user initiating “conflict resolution”, but also maintaining updated version records as detailed in col 17, line 59-67, col 18, line 28-51.

Arun does not explicitly disclose generating a third version of the associative array by such merging and resolving conflicts. However, Baisley teaches generating a third version of the associative array by merging modifications from the first version of an object and the second version of the object and resolving conflicts between the first version of the object and the second version of the object (i.e., merging changes in the multiple versions into a specific version of the object, fig 3, col 5, line 20-37, line 38-47]) Baisley specifically teaches model versions maintaining version attributes, particularly, multiple versions in a version tree for example as detailed inn fig 3, also teaches performing the “merge operation” and resolving conflicts between versions as detailed in col 5, line 20-37, line 38-47.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of merging versions of a model particularly merging a source version of a target version of a model of Baisley's into database version control , particularly versioning control module of Arun et al. because both Baisley, Arun are directed to version management [Baisley: fig 3, Abstract; Arun: Abstract, fig 1], and both Baisley, Arun teach "version tree" [Baisley: fig 3; Arun: fig 3] and both Baisley and Arun are from same field of endeavor. Because both Baisley, Arun teach "version management" particularly resolving conflicts between versions [Baisley: Abstract; Arun: Abstract], it would have been obvious to one skilled in the art to combine the references to achieve the "predictable result" of not only merging multiple versions, resolving conflict, but also maintaining respective attribute value conflict to the user for examination and resolution when future versions are merged.

22. With respect to claim 56, Arun teaches generating a first change set identifying the modifications to the associative array in the first version of the associative array and generating a second change set identifying the modifications to the associative array in the second version of the associative array (i.e., item 151 in fig. 6). Arun teaches applying the modifications identified by the first changeset and the second changeset to the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B). Therefore, the limitations of claim 56 are rejected in the analysis of claim 55 above, and the claim is rejected on that basis. With respect to claim 57, Arun teaches generating a directed acyclic graph, the directed acyclic graph identifying a difference between a version of

Art Unit: 2166

the associative array and the associative array (fig. 3 and fig. 5). Therefore, the limitations of claim 57 are rejected in the analysis of claims 55-56 above, and the claim is rejected on that basis.

23. With respect to claim 58, Arun teaches the directed acyclic graph identifies the modification to the associative array by the first version of the associative array and the modification to the associative array by the second version of the associative array (fig. 3 and fig. 5). Therefore, the limitations of claim 58 are rejected in the analysis of claim 57 above, and the claim is rejected on that basis.

24. With respect to claim 59, Arun teaches comparing key/value pairs in the first version of the associative array, the second version of the associative array and the associative array and responsive to conflicts in the comparison of key/value pairs, prompting a user to specify a value for a conflicting key/value pair (i.e., items 152-153 in fig. 6).

25. With respect to claim 60, Arun teaches displaying a version of the associative array as a database record (fig. 2 and lines 49-67 in col. 4).

Therefore, the limitations of claim 60 are rejected in the analysis of claim 55 above, and the claim is rejected on that basis.

Art Unit: 2166

26. With respect to claim 61, Arun teaches displaying a plurality of modified associative arrays as a database table (fig. 2 and lines 49-67 in col. 4).

27. With respect to claim 62, Baisley teaches 'generating a report including the third version of the associative array col 2, line 19-28, and data or metadata describing at least one of the directed acyclic graph, the merged modification and the conflicts [col 5, line 28-37, line 42-53, table I-II]

28. With respect to claim 63, Arun teaches selecting a conflict, applying an algorithm having knowledge of the data in the associative array, and modifying the version of the associative array responsive to a result of the applied algorithm (fig. 6). Therefore, the limitations of claim 63 are rejected in the analysis of claim 56 above, and the claim is rejected on that basis.

29. With respect to claim 64, Arun teaches selecting a key/value pair having conflicting values in the first version of the associative array and the second version of the associative array, evaluating historical values of the selected conflicting key/value pair, and modifying the selected key/value pair responsive to the evaluation (fig. 6).

30. With respect to claim 65, Arun teaches a data store (i.e., database in fig. 1 ) including the associative array, the associative array comprising a file including at least one key/value pair (i.e., records in the form of files, lines 27-33 in col. 3 and lines 23-28

Art Unit: 2166

in col. 26), a first version of the associative array having a first key/value pair and a second version of the associative array having a second key/value pair (i.e., each first and second user having a record including a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy and modifying the record, fig. 3, fig. 4, fig. 5, lines 20-54 in col. 2, and lines 52-67 in col. 26);

Arun teaches a version controller adapted to communicate with the data store (i.e., version control subsystem 11 in fig. 1 communicating with the database), the version controller for merging modifications from the first version of the associative array and the second version of the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B) and resolving a plurality of conflicts between the first version of the associative array and the second version of the associative array (i.e., item 153 in fig. 6, col 17, line 9-17, line 59-67, col 18, line 1-12,), by receiving a plurality of user inputs responsive to identifying the plurality of conflicts each user input (col 17, line 59-65) specifying a conflict resolution procedure for an individual conflict (i.e., items 152-153 in fig. 6, col 17, line 59-67 col 18, line 28-51), Arun specifically teaches not only user interface where user initiating “conflict resolution”, but also maintaining updated version records as detailed in col 17, line 59-67 col 18, line 28-51) .

Arun does not explicitly disclose generating a third version of the associative array by such merging and resolving conflicts. However, Baisley teaches generating a third version of the associative array by merging modifications from the first version of an object and the second version of the object and resolving conflicts between the first

Art Unit: 2166

version of the object and the second version of the object (i.e., merging changes in the multiple versions into a specific version of the object, fig 3, col 5, line 20-37, line 38-47]) Baisley specifically teaches model versions maintaining version attributes, particularly, multiple versions in a version tree for example as detailed in fig 3, also teaches performing the “merge operation” and resolving conflicts between versions as detailed in col 5, line 20-37, line 38-47.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of merging versions of a model particularly merging a source version of a target version of a model of Baisley's into database version control , particularly versioning control module of Arun et al. because both Baisley, Arun are directed to version management [Baisley: fig 3, Abstract; Arun: Abstract, fig 1], and both Baisley, Arun teach “version tree” [Baisley: fig 3; Arun: fig 3] and both Baisley and Arun are from same field of endeavor. Because both Baisley, Arun teach “version management” particularly resolving conflicts between versions [Baisley: Abstract; Arun: Abstract], it would have been obvious to one skilled in the art to to combine the references to achieve the “predictable result” of not only merging multiple versions, resolving conflict, but also maintaining respective attribute value conflict to the user for examination and resolution when future versions are merged.

Art Unit: 2166

31. With respect to claim 66, Arun teaches the version controller further generates a directed acyclic graph, wherein the directed acyclic graph identifies a modification to the associative array by the first version of the associative array and a modification to the associative array by the second version of the associative array (fig. 3 and fig. 5).

32. With respect to claim 67, Arun teaches a communication module for connecting the version controller to a computer network and receiving a fourth version of the associative array including a modified key/value pair (i.e., version control subsystem 11 communicating a third user for a fourth version of the associative array in fig. 1).

33. With respect to claim 68, Arun teaches merging modification from the fourth version of the associative array with another version of the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B). Therefore, the limitations of claim 68 are rejected in the analysis of claims 65 and 67 above, and the claim is rejected on that basis.

34. With respect to claim 69, Arun teaches the version controller further resolves a conflict between the fourth version of the associative array and at least one from the group of the first version of the associative array, the second version of the associative array and the third version of the associative array (i.e., item 153 in fig. 6).

35. With respect to claim 70, Arun teaches the version controller further organizes a plurality of associative arrays as a database table (fig. 2 and lines 49-67 in col. 4).

36. With respect to claim 71, Arun teaches the associative array comprises a file including a key and a value (i.e., records in the form of files, lines 27-33 in col. 3 and lines 23-28 in col. 26).

37. With respect to claim 72, Baisley teaches 'associative array comprises an XML file including a key and a value associated with the key' [col 3, line 51-57]

38. With respect to claim 73, Arun teaches the data store further includes a specification file defining at least one of a default value associated with a key and a constraint on a value associated with a key (i.e., a default value in a field of a table, lines 16-27 in col. 6).

39. The limitations of claim 74 are rejected in the analysis of claim 55 above, and the claim is rejected on that basis.

40. The limitations of claim 75 are rejected in the analysis of claim 56 above, and the claim is rejected on that basis.

41. The limitations of claim 76 are rejected in the analysis of claim 57 above, and the claim is rejected on that basis.



Art Unit: 2166

42. The limitations of claim 77 are rejected in the analysis of claim 58 above, and the claim is rejected on that basis.

43. The limitations of claim 78 are rejected in the analysis of claim 59 above, and the claim is rejected on that basis.

44. The limitations of claim 79 are rejected in the analysis of claim 60 above, and the claim is rejected on that basis.

45. The limitations of claim 80 are rejected in the analysis of claim 61 above, and the claim is rejected on that basis.

46. The limitations of claim 81 are rejected in the analysis of claim 62 above, and the claim is rejected on that basis.

47. With respect to claim 82, Arun teaches selecting a key/value pair having conflicts values in the first version of the associative array and the second version of the associative array (i.e., items 151-152 in fig. 6), prompting a user to input a value for the selected key/value pair (i.e., item 153 in fig. 6), and associating the user input value with the selected key/value pair (i.e., items 154, 156, and 157 in figs. 6A and 6B).

Art Unit: 2166

48. The limitations of claim 83 are rejected in the analysis of claim 64 above, and the claim is rejected on that basis.

49. The limitations of claim 84 are rejected in the analysis of claim 55 above, and the claim is rejected on that basis.

### ***Response to Arguments***

50. Applicant's arguments filed with respect to claims 48-84 filed on 2/11/2009, with respect to claims 48,55,65,74 have been fully considered but they are not persuasive., for examiner's response, see discussion below:

a) At page 12-14, applicant argues that "independent claims variously recite "generating a third version of the associative array .....", so that the independent claims produce a "useful, concrete and tangible result" the "third version of the associate array". To generate the resulting "third version of the associative array" the independent claims recite "receiving a plurality of user inputs.....". Merely accounting for received user input when generating the "third version of the associative array" does not prevent the claims from producing a "useful, tangible and concrete result" in the generated "third version....."

As to the above argument[a], the examiner disagrees with the Appellant in finding that all of the claims in the application are invalid under 35 USC 101.

As stated in the previous office action, one may not patent every “substantial practical application” of an idea, law of nature or natural phenomena because such a patent “in practical effect be a patent on the [abstract idea, law of nature or natural phenomena/naturally occurring article] itself, see “Gottschalk v Benson, 409 U.S.63,71-72,175 USPQ 673,676 (1972).

The claims in **Gottschalk** were directed to a mathematical method running on a computer: converting binary-coded-decimal (BCD) numerals into pur binary numerals for use with general purpose digital computer of any type. **Gottschalk** at 65.

The Supreme Court held in **Gottschalk** that “one may not patent an idea. But in practical effect that would be the result if the formula for converting BCD numerals to pure binary numerals were patented in this case. The mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.” **Gottschalk** at 71-72.

Therefore, whether a claim recites a machine implemented process is not determinative of whether that process claim is statutory. Thus, a claim that is nothing more than a machine-implemented abstract idea is invalid.

Moreover, the Supreme Court also held that “[h]ere the “process” claim is so abstract and sweeping as to cover both known and unknown uses of the BCD to pure binary conversion. The end use may (1) vary from the operation of a train[,] to verification of drivers’ licenses [,] to researching the law books for precedents[,] and (2) be performed through any existing machinery or future-devised machinery or without any apparatus. [see **Gottshcalk** at 68].

The Examiner finds that the claims in the instant application share the same characteristics as the claims in **Gottshcalk**. The claims 48,55,65,74 in the instant application are directed to a system, method, apparatus, computer program product comprising a computer readable medium computer-readable medium, or merely machine-implemented abstract idea. These claims are (1) so abstract and sweeping as to cover both known and unknown uses of the underlying math, (2) so abstract and sweeping as to be applicable to a wide variety of unrelated applications.

For example, independent claim 1 recites “A system for applying version control to an associative array comprising:

***a first computer including a first version.....value pair;***

***a second computer including a second version.....key/value pair; and***

***a version controller, adapted to .....individual conflict”***

claim 1 elements would reasonably be interpreted by one of ordinary skill in light of the disclosure at page 6-11 as software, such that the system or method is software,

Art Unit: 2166

per se , is “non-statutory subject matter” and ***claim 1 do not have*** “practical application” because the “final result” by the claimed invention in the claim 1 elements particularly “***a version controller,.....merging modifications from the first version .....individual conflict***” is not producing “useful, tangible and concrete”. Furthermore, the claims cover any data base structure containing records version[s] array. In other words, the claims are so broad as to cover every “substantial practical application” as discussed in **Gottschalk**.

Further it is noted that the Court of Appeals for the Federal Circuit (CAFC) decision in **State Street Bank & Trust Co. v. Signature Financial Group Inc.**, 149 F.3d 1368, 1373-74,47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998), The examiner notes that **State Street** was decided by a lower court, and therefore, does not overrule the Supreme Court decision in **Gottschalk**

Moreover, the Examiner interprets the **State Street** decision differently that the Appellant does. The Appellant interprets **State Street** as upholding claims that “reducing the size of the first database table to prevent degradation of response times when database users access the records.....”

The Examiner reads the case very differently. The Examiner interprets the holds in **State Street** to be narrow in scope: that a dollar value output is a “concrete, useful, tangible” result. The decision says so expressly (See State Street at 1373).

Also, examiner notes that the CAFC has upheld other computer-implemented algorithm claims, where the outputs were narrowly claimed [see AT&T Corp v. Excel

Art Unit: 2166

Communications, Inc., 172 F.3d 1352 (Fed.Cir.1999) (upholding claims directed to a long-distance telephone billing process containing mathematical algorithms that generated PIC codes); In re Alappat, 33 F.3<sup>rd</sup> 1526 (Fed.Cir.1994) (upholding claims directed to computer-implemented mathematical algorithms that generated smooth waveform display on a rasterized monitor); Arrhythmia Research Technology Inc. v. Corazonix Corp., 958 F. 2d 1053 22 USPQ2d 1033 (Fed.Cir.1992) (upholding claims directed to the transformation of electrocardiograph signals from a patient's heartbeat by a machine through a series of mathematical calculations that output the condition of a patient's heart).

It is further noted that the common thing between above cited cases was a test to determine whether the claimed invention produces a “useful, concrete and tangible result”[State Street at 1373]. In comparison, the independent 1 in the instant application recites particularly “***a first computer including a first version.....value pair;***

***a second computer including a second version.....key/value pair; and***

***a version controller, adapted to .....individual conflict***”

” falls under the Gottschalk definition of a claim that “is so abstract and sweeping as to cover both known and unknown uses. Examiner also respectfully disagrees with the Appellant [page 15] in regards to the applicability of State Street. Examiner finds that

“***a version controller,.....merging modifications from the first version***

***.....individual conflict***” is merely algorithm without producing “real-world” value.

Art Unit: 2166

Examiner finds that all of the claims 55,65,74 in the instant application share this defect. Claims 49-54,56-61,66-73,75-84, depend from claims 48,55,65,74 also rejected in the above analysis.

b) At page 16-17, claim 48,55,65,74, applicant argues that “Arun does not disclose at least the claimed element “resolving a plurality of conflicts between the first version of the associative array and the second version of the associative array by receiving a plurality of user inputs responsive to identifying the plurality of conflicts, each user input specifying a conflict resolution procedure for an individual conflict”, Rather, Arun describes a database version control system where a database table includes “at least some records having “a version control field including version control information”. Regarding the resolution of conflicts between versions, at most Arun describes a conflict resolution operation in which a user checking a checked-out record version determines whether the checked-out record version or a record version stored in the database is preserved for later use [Arun: col 3, line 17-20]....Thus for one or more conflicts between a first record version and a second record version, Arun merely provides a single user input that allows the user to choose between (a) resolving all conflicts between the two records versions with data from the second record version [Arun: fig 6,fig 6A].

As to the above argument [b] examiner disagree with the applicant because the following reasons:

Art Unit: 2166

Under 35 USC 103(a) – Principles of Law:

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" KSR Int'l Co. v. TeleflexInc., 127 S. Ct. 1727, 1734 (2007).

In KSR, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *Id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. KSR, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966)). The Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 1740.

The Federal Circuit recently recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing KSR, 127 S. Ct. 1727, 1739 (2007)). The Federal Circuit relied in part on the fact that Leapfrog had presented no evidence that the inclusion of a reader in the combined device was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Id.* (citing KSR, 127 S. Ct. at 1740-41).



One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Merck & Co., Inc., 800 F.2d 1091, 1097 (Fed. Cir. 1986)..

Examiner notes that Arun clearly teaches “version control system”, particularly, version control tree or hierarchy of states of versions, where conflicts are discovered and resolved [see Abstract]. Further, it is noted that Arun is not limited to single conflict resolving, but focused on multiple records including specific version control field where each version is identified with version identifier and related information [see fig 2, col 5, line 57-67, col 6, line 1-5]. As noted , Arun not only teaches user interface where user has the ability to specify particular record[s] with respect to version identifier to discover specific “individual conflict[s]”, but also resolving conflict[s] and maintaining updated version records as detailed in col 17, line 59-67. More particularly, it is an objective to detect conflicts, and resolving conflicts in order to maintain updated “version control information” data records in the database [see Abstract]. Furthermore, examiner agree with the applicant that Arun does teach not only teaches user interface allows to input required information and/or select specific record version but also resolves the conflict , i.e. Arun specifically teaches “conflict resolution operation” as detailed in col 17, line 59-65

c) At page 17-19, Claims 48,55,65,74, applicant argues that “Arun does not allow a user to individually resolve multiple conflicts by selecting data from different versions using user input for each conflict encountered, but rather users a single user input to

Art Unit: 2166

specify the version used to resolve all conflicts encountered. Hence Arun does not disclose at least the claimed element "resolving a plurality of conflicts between the first version of the associative array and the second version of the associate array by receiving a plurality of user inputs responsive to identifying the plurality of conflicts, each user input specifying a conflict resolution procedure for an individual conflict".

Baisley does not remedy the deficient disclosure of Arun. Rather, Baisley merges a source version of a model into a target version of the model in an object oriented repository....

Thus, neither of the cited references, taken alone or in combination, teaches or suggests the claimed invention.

As to the argument [c], Under 35 USC § 103, by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and

Art Unit: 2166

(4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). See also *KSR*, 127 S. Ct. 1727, 1734 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.")

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results."). *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739(2007)). "One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims." *KSR*, 127 S. Ct. at 1742.

Discussing the obviousness of claimed combinations of elements of prior art, *KSR* explains:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida v. AG Pro, Inc.*, 425 U.S. 273 (1976)] and *Anderson's-Black Rock[, Inc. v. Pavement Salvage Co.]*, 396 U.S. 57 (1969)] are illustrative--a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR, 127 S. Ct. at 1740. Where the claimed subject matter cannot be fairly characterized as involving the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, a holding of obviousness can be based on a showing that there was "an apparent reason to combine the known elements in the fashion claimed." KSR, 127 S. Ct. at 1741. Such a showing requires "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.*, 127 S. Ct. at 1741 (quoting *In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006)).

The reasoning given as support for the conclusion of obviousness can be based on interrelated teachings of multiple patents, the effects of demands known to the design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art. KSR, 127 S. Ct. at 1740-41. See also *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2007).

Examiner noted that court has recently reaffirmed that:

[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the 'improvement' is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient. Because the desire to enhance commercial opportunities by improving a product or process is universal-and even common-sensical-we have held that there exists in these

Art Unit: 2166

situations a motivation to combine prior art references even absent any hint of suggestion in the references themselves. In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him capable of combining the prior art references.

Leapfrog, 485 F.3d at 1162 (holding it "obvious to combine the Bevan device with the SSR to update it using modem electronic components in order to gain the commonly understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost").

Also, a reference may suggest a solution to a problem it was not designed to solve and thus does not discuss. KSR, 127 S. Ct. at 1742 ("Common sense teaches... that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle .....A person of ordinary skill is also a person of ordinary creativity, not an automaton.").

The prior art relied on to prove obviousness must be analogous art. As explained in Kahn,

the 'analogous-art' test-has long been part of the primary Graham analysis articulated by the Supreme Court. See *Dann [v. Johnston]*, 425 U.S. [219,] 227-29 (1976), *Graham*, 383 U.S. at 35. The analogous-art test requires that the Board show that a reference is either in the field of the applicant's endeavor or is reasonably pertinent to the problem with which the inventor was concerned in order to rely on that reference as a basis for rejection. In *re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992). References are selected as being reasonably pertinent to the problem based on the judgment of a person having ordinary skill in the art. *Id.* ("[I]t is necessary to consider 'the reality of the circumstances,'-in other words, common sense-in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the

Art Unit: 2166

inventor." (quoting *In re Wood*, 599 F.2d 1032, 1036 (C.C.P.A. 1979))). Kahn, 441 F.3d at 986-87. See also *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992) ("[a] reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.").

In view of KSR's holding that "any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed," 127 S. Ct. at 1742 (emphasis added), it is clear that the second part of the analogous-art test as stated in *Clay*, supra, must be expanded to require a determination of whether the reference, even though it may be in a different field from that of the inventor's endeavor, is one which, because of the matter with which it deals, logically would have commended itself to an artisan's (not necessarily the inventor's) attention in considering any need or problem known in the field of endeavor. Furthermore, although under KSR it is not always necessary to identify a known need or problem as a motivation for modifying or combining the prior art, it is nevertheless always necessary that the prior art relied on to prove obviousness be analogous. See KSR, 127 S. Ct. at 1739. ("The Court [in *United States v. Adams*, 383 U.S. 39, 40 (1966)] recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.") (emphasis added). See also *Sakraida*, 425 U.S. 273,280 (1976)

In this case, Arun specifically teaches not only user interface that allows users to edit or update data records, but also allows users to identify specific record[s], version

Art Unit: 2166

identifier[s] "conflicts" and resolving accordingly [see Abstract, fig 6, element 152-153, col 17, line 59-65, col 18, line 28-51]. Further, it is noted that Arun specifically teaches "collaboration among users " using either same version or different version, particularly users can enable series of such versions associated with a state as detailed col 13, line 61-67, col 14, line 23-29, allows to resolve multiple conflicts between specific version[s] or different version[s].

The determination of obviousness must consider, inter alia, whether a person of ordinary skill in the art would have been motivated to combine the prior art to achieve the claimed invention and whether there would have been a reasonable expectation of success in doing so. *Brown & Williamson Tobacco Corp. v. Philip Morris', Inc.*, 229 F.3d 1120, 1124 (Fed. Cir. 2000). *Rotabo S.L.*, 77 USPQ2d 1865, t 869 (Fed. Cir. 2006). Where the teachings of two or more prior art references conflict, the Examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. In *re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991). If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In *re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984.) Furthermore, examiner notes that court has held that "[a] reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." In

Art Unit: 2166

re Gurley, 27 F.3d 551,553 (Fed. Cir. 1994). See also Para-Ordnance Mfg. v. SGS Importers Int'l, 73 F.3d 1085, 1090 (Fed. Cir. 1995).

In this case, Gong is directed to collections of versions and merging versions from source version into a target version model, particularly building list of versions from the first list, building second list collection of versions from the target versions, mechanism of comparing and merging versions either the first or the second list , while resolving conflicts preferably maintaining "conflicting attribute value" in the system [see Abstract, col 2, line 10-28].

It is however, noted that Arun does not explicitly disclose generating a third version of the associative array by such merging and resolving conflicts. However, Baisley teaches generating a third version of the associative array by merging modifications from the first version of an object and the second version of the object and resolving conflicts between the first version of the object and the second version of the object (i.e., merging changes in the multiple versions into a specific version of the object, fig 3, col 5, line 20-37, line 38-47]) Baisley specifically teaches model versions maintaining version attributes, particularly, multiple versions in a version tree for example as detailed in fig 3, also teaches performing the "merge operation" and resolving conflicts between versions as detailed in col 5, line 20-37, line 38-47.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of merging versions of a model particularly merging a source version of a target version of a model of Baisley's into



Art Unit: 2166

database version control , particularly versioning control module of Arun et al. because both Baisley, Arun are directed to version management [Baisley: fig 3, Abstract; Arun: Abstract, fig 1], and both Baisley, Arun teach "version tree" [Baisley: fig 3; Arun: fig 3] and both Baisley and Arun are from same field of endeavor. Because both Baisley, Arun teach "version management" particularly resolving conflicts between versions [Baisley: Abstract; Arun: Abstract], it would have been obvious to one skilled in the art to to combine the references to achieve the "predictable result" of not only merging multiple versions, resolving conflict, but also maintaining respective attribute value conflict to the user for examination and resolution when future versions are merged.

### ***Conclusion***

#### **The prior art made of record**

- |    |               |         |
|----|---------------|---------|
| a. | US Patent No. | 6631386 |
| b. | US Patent No. | 6415299 |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

/Srirama Channavajjala/  
Primary Examiner, Art Unit 2166